

ATTACHMENT D

TRADITIONAL CONSTRUCTION RISK LEVEL REQUIREMENTS

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT FOR STORMWATER DISCHARGES
ASSOCIATED WITH CONSTRUCTION AND LAND DISTURBANCE ACTIVITIES
(GENERAL PERMIT)**

I. GENERAL REQUIREMENTS

Risk Level 1, 2, and 3 dischargers shall implement the following minimum best management practices (BMPs) to reduce or prevent pollutants in construction stormwater discharges, monitoring requirements, and reporting requirements. If a requirement in this attachment does not specify a specific Risk Level, then the requirement applies to Risk Level 1, 2, and 3 dischargers.

II. MINIMUM BEST MANAGEMENT PRACTICES

II.A. Good Site Management "Housekeeping"

II.A.1. Dischargers shall implement good site management (i.e., "housekeeping") measures for construction materials that could potentially be a threat to water quality if discharged or exposed to stormwater. At a minimum, dischargers shall implement the following good housekeeping measures:

- a. Identify and protect the products used and/or expected to be used and the end products that are produced and/or expected to be produced from exposure to stormwater. Products do not include materials and equipment that are designed to be outdoors and exposed to environmental conditions (e.g., poles, equipment pads, cabinets, conductors, insulators, bricks, roofing, and siding);
- b. Apply BMPs to erodible stockpiled construction materials (e.g., soil, spoils, fly-ash, stucco, hydrated lime) to prevent erosion and pollutant transport;
- c. Store chemicals in watertight containers with secondary containment to prevent any spillage or leakage or store in a completely enclosed storage area;
- d. Minimize exposure of construction materials to precipitation. Construction materials do not include materials and equipment that are designed to be outdoors and exposed to environmental conditions (e.g., poles, equipment pads, cabinets, conductors, insulators, bricks);
- e. Implement BMPs to control the off-site tracking of sediment and loose construction and landscape materials; and
- f. Implement BMPs to control the discharge of plastic materials and limit the use of plastic materials when more sustainable, environmentally friendly alternatives exist. Dischargers shall consider the use of plastic materials resistant to solar degradation where plastic materials are deemed necessary.

- II.A.2. Dischargers shall implement good housekeeping measures for waste management, which, at a minimum, shall consist of the following:
- a. Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, masonry wash waters, and other wash waters. Wash waters shall be captured and treated prior to discharge, or disposed of at a permitted facility that can accept that waste, to mitigate impacts to water quality;
 - b. Provide containment (e.g., secondary containment) of sanitation facilities (e.g., portable toilets) to prevent discharges of pollutants to the stormwater drainage system or receiving water;
 - c. Clean or replace sanitation facilities and inspect them regularly for leaks and spills;
 - d. Keep debris or trash in waste containers if it is subject to transport from the site by wind or runoff;
 - e. Cover waste disposal containers at the end of every business day and during a precipitation event;
 - f. Prevent discharges from waste disposal containers to the stormwater drainage system or receiving water (e.g., containers with solid bottoms and regular maintenance);
 - g. Contain and securely protect stockpiled waste material from wind and precipitation unless actively being used; and
 - h. Secure and contain concrete washout areas and other washout areas that may contain additional pollutants to minimize discharge into the underlying soil and onto surrounding areas. Washout areas shall be covered prior to and during a precipitation event.
- II.A.3. Dischargers shall implement good housekeeping for vehicle/equipment storage and maintenance, which shall consist of the following:
- a. Contain fuel, grease, and oil to prevent them from leaking into ground, storm drains, or surface waters;
 - b. Place all equipment or vehicles, which are to be fueled, maintained, and/or stored in a designated area with BMPs installed; and
 - c. Clean leaks immediately and dispose of leaked materials properly in accordance with the law.
- II.A.4. Dischargers shall implement good housekeeping for landscape materials, which shall consist of the following:
- a. Contain and protect stockpiled materials such as mulches and topsoil, or other erodible landscape materials, from wind and precipitation unless being actively used;
 - b. Contain packaged landscape materials (e.g., fertilizers) when they are not being actively used;

- c. Discontinue the application of any erodible landscape material at least 2 days before a forecasted precipitation event as defined in Attachment B or during periods of precipitation; and
- d. Apply erodible landscape material at quantities and rates in accordance with manufacturer recommendations or based on written specifications by knowledgeable and experienced field personnel;

II.A.5. Dischargers shall implement good housekeeping measures on the construction site to control the aerial deposition of site materials and from site operations. Such particulates can include, but are not limited to, metals, nutrients, organics, sediment, other particulates, and trash.

II.A.6. Dischargers shall document all housekeeping BMPs in the SWPPP that correspond to the nature and phase of the construction activities. Construction phases at traditional land development projects include demolition and pre-development site preparation phase, grading and land development phase, streets and utilities phase, vertical construction phase, and final landscaping and site stabilization phase.

II.B. Non-Stormwater Management

II.B.1. Dischargers shall implement the following measures to control all non-stormwater discharges during construction:

- a. Wash vehicles in such a manner as to prevent non-stormwater discharges to surface waters or municipal separate sewer system drainage systems;
- b. Clean streets in such a manner as to prevent unauthorized non-stormwater discharges from reaching surface water or municipal separate sewer system drainage systems; and
- c. Eliminate any non-stormwater discharges not authorized in Section IV.A of this General Permit's Order.

II.C. Preserve Existing Topsoil

II.C.1. Dischargers shall preserve existing topsoil, unless infeasible, through the following practices:

- a. Stockpiling existing topsoil, or transferring topsoil to other locations, to deploy and reestablish vegetation prior to termination of coverage; and
- b. Stabilizing disturbed topsoil during construction.

Preserving existing topsoil is not required where the intended function of a specific area of the site dictates that the topsoil be disturbed or removed.¹

¹ Examples may include the removal of topsoil containing invasive seedbanks, lack of space to stockpile topsoil, and sites that are designed to be highly impervious after construction with little to no vegetation intended to remain.

II.D. Erosion Control

- II.D.1. Dischargers shall implement the following practices to eliminate or minimize site erosion. Erosion control BMPs (except for sprayed products) shall be available on-site or at a nearby location (e.g., common lay-down yard), year-round with trained persons able to deploy the product under the direction of the Qualified SWPPP Practitioner:
- a. Implement effective wind erosion control;
 - b. Preserve existing vegetation;
 - c. Minimize the amount of soil exposed during construction activity;
 - d. Minimize the disturbance of steep slopes;
 - e. Schedule earthwork to minimize the amount of disturbed area when feasible;
 - f. Immediately initiate stabilization for disturbed areas whenever earth disturbing activities have permanently ceased on any portion of the site, or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days;²
 - g. Minimize soil compaction in areas other than where the intended function of a specific area dictates that it be compacted;
 - h. Reestablish vegetation or non-vegetative erosion controls as soon as practicable;
 - i. If feasible, divert up gradient run-on water from contacting areas of exposed soils disturbed by construction activities or convey run-on through the site in a manner that prevents erosion from areas of construction and does not compromise the effectiveness of erosion, sediment, and perimeter controls;
 - j. Run-on water flowing onto a site from off-site areas may be separated from a site's stormwater discharge to eliminate commingled contribution. Run-on diversion shall occur prior to entering an area affected by construction activity. Run-on flow diversion shall be conveyed through or around the construction activity in plastic pipe or an engineered conveyance channel in a manner that will not cause erosion due to flow diversion. Run-on combined with a site's stormwater discharge is considered a stormwater discharge.
 - k. Limit the use of plastic materials when more sustainable, environmentally friendly alternatives exist. Where plastic materials are deemed necessary, the

² In arid, semiarid, and drought-stricken areas where initiating vegetative stabilization measures immediately is infeasible, alternative stabilization measures shall be employed as specified by the Regional Water Board. Stabilization shall be completed within a period of time determined by the Regional Water Board. In limited circumstances stabilization may not be required if the intended function of a specific area of the site necessitates that it remains disturbed.

discharger shall consider the use of plastic materials resistant to solar degradation;

- I. Control stormwater and non-stormwater discharges to minimize downstream channel and bank erosion; and
- m. Control peak flowrates and total volume of stormwater and authorized non-stormwater discharges to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points.

II.D.2. Dischargers that stabilize soil using bonded-fiber matrices, hydromulches, spray tackifiers, or other land-applied products shall:

- a. Apply the product according to the manufacturer's instructions and guidance; and
- b. Apply the product according to the manufacturer's guidance to allow for ample cure time and to prevent treatment chemicals from being transported by runoff.

II.E. Sediment Controls

II.E.1. Dischargers shall implement the following site sediment controls:

- a. Establish and maintain effective perimeter controls;
- b. Stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from the site; and
- c. Design, install, and maintain effective sediment controls to minimize the discharge of pollutants utilizing site-specific BMPs.

At a minimum, design sediment basins and impoundments according to the method provided in the California Stormwater Quality Association Construction BMP Handbook³ and utilize outlet structures that withdraw water from the surface. Dischargers utilizing sediment basins shall complete installation prior to other land disturbance activities.

II.F. Additional Risk Level 2 and 3 Requirements:

II.F.1. Risk Level 2 and 3 dischargers shall implement the following additional erosion and sediment control BMPs for areas under active⁴ construction:

3 California Stormwater Quality Association (CASQA), [Construction BMP Handbook](https://www.casqa.org/sites/default/files/casqa-handbook-construction/master_hanbook_file_2015_sec.pdf) (January 2015), <https://www.casqa.org/sites/default/files/casqa-handbook-construction/master_hanbook_file_2015_sec.pdf> [as of May 20, 2021] (CASQA Construction BMP Handbook)

4 Active areas of construction are areas undergoing land surface disturbance and associated site areas. This includes construction activity during the preliminary phase, mass grading phase, streets and utilities phase, and the vertical construction phase.

- a. Design and construct cut and fill slopes in a manner to ensure slope stability and to minimize erosion including, but not limited to, these practices:
 - i. Reduce continuous slope length using terracing and diversions;
 - ii. Reduce slope steepness; and
 - iii. Roughen slope surfaces with large cobble or track walking.
- b. Install linear sediment controls along the toe of the slope, face of the slope, and at the grade breaks of exposed slopes according to sheet flow lengths as shown in Table 1 until the slope has reached Notice of Termination conditions for erosion protection. When infeasible to comply with Table 1 due to site-specific geology or topography, the QSD shall include in the SWPPP a justification for the use of an alternative method to protect slopes from erosion and sediment loss.

Table 1 - Critical Slope and Sheet Flow Length Combinations for Linear Sediment Reduction Barrier

Slope Ratio (Vertical to Horizontal)	Sheet flow length not to exceed
≤ 1:20	Per QSD's specification.
> 1:20 to ≤ 1:4	35 feet
> 1:4 to ≤ 1:3	20 feet
> 1:3 to ≤ 1:2	15 feet
> 1:2	10 feet

- II.F.2. Limit construction activity traffic to and from the project to entrances and exits that employ effective controls to prevent off-site tracking of sediment.
- II.F.3. Maintain and protect all storm drain inlets, perimeter controls, and BMPs at entrances and exits (e.g., tire wash off locations).
- II.F.4. Remove any excess sediment or other construction activity-related materials that are deposited on the impervious roads by vacuuming or sweeping prior to any precipitation event.
- II.F.5. Implement additional site-specific sediment controls upon written request by the Regional Water Boards when the implementation of the other requirements in this Section are determined to inadequately protect the site's receiving water(s).

II.G. Surface Water Buffer⁵

- II.G.1. Dischargers shall provide and maintain natural buffers and/or equivalent erosion and sediment controls when a water of the U.S. is located within 50 feet of the site's earth disturbances, unless infeasible.
- II.G.2. Dischargers shall comply with one of the following alternatives for any discharges to waters of the U.S. located within 50 feet of a site's earth disturbances:
- a. Provide and maintain a 50-foot undisturbed natural buffer from the edge of the disturbed area to the top of bank;
 - b. Provide and maintain an undisturbed natural buffer that is less than 50 feet and is supplemented by erosion and sediment controls that achieve, in combination, the sediment load reduction equivalent to a 50-foot undisturbed natural buffer. The equivalent sediment load may be calculated using RUSLE2 or another method approved by the Regional Water Board; or
 - c. Implement erosion and sediment controls to achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer when infeasible to provide and maintain an undisturbed natural buffer of any size. The equivalent sediment load may be calculated using RUSLE2 or another method approved by the Regional Water Board.

II.H. Pesticide Application

Dischargers shall only apply pesticides that have been authorized for use through California Department of Pesticide Regulation. The application of pesticides shall follow manufacturer's guidance.

II.I. Demolition of Existing Structure

Dischargers shall prevent exposing demolition materials to precipitation. Demolition materials should be covered with an impermeable barrier such as, but not limited to, plastic sheeting prior to precipitation to prevent known contaminants from being mobilized. Dischargers unable to cover demolished material that were not previously investigated or found to be absent of applicable pollutants in reportable quantities shall sample for any non-visible pollutants that may be in stormwater

⁵ The surface water buffer requirements apply to work above the top-of-bank or high-water level of waters of the United States. Work within a channel or streambed (water body-dependent construction), Clean Water Act § 404 projects with a § 401 certification, and projects where no natural surface buffer exists (e.g., concrete channelization) are exempt from the requirements. All types of in-channel work may be regulated under § 401 (Clean Water Act - Regional Boards), § 404 (Clean Water Act - Army Corps of Engineers), or §1602 (California Fish and Game Code).

discharges such as, but not limited to, asbestos, leaded paint, or Poly Chlorinated Biphenyls (PCBs)⁶.

II.J. Maintenance and Repair

- II.J.1. Dischargers shall begin maintaining, repairing, and/or implementing design changes (reviewing alternatives that have not been used yet) to BMPs within 72 hours of identification of failures or other shortcomings and complete the changes as soon as possible, prior to the next forecasted precipitation event.
- II.J.2. Dischargers shall have a Qualified SWPPP Practitioner (QSP) verify all BMP maintenance and repairs were appropriately implemented during the next visual inspection following completion. The QSP may delegate BMP maintenance and repair verification to an appropriately trained delegate.

III. MONITORING REQUIREMENTS

III.A. General Requirements

The monitoring requirements of this Section are issued pursuant to Water Code § 13383 and specifies monitoring requirements for dischargers subject to this Order.

All dischargers shall implement the Construction Site Monitoring Program in compliance with this Section at the time of the commencement of construction activity and shall continue implementation until the project is complete and the project site is stabilized as defined in Section III.H in the Order.

III.B. Monitoring Exceptions

- III.B.1. Dischargers shall conduct visual inspections and collect samples to meet the requirements of this Attachment. Dischargers are not required to physically conduct visual inspections or collect samples under the following conditions:
 - a. During dangerous weather conditions such as electrical storms, flooding, and high winds above 40 miles per hour;
 - b. Outside of scheduled site operating hours; or
 - c. When the site is not accessible to personnel.
- III.B.2. For inactive projects, dischargers may reduce the visual inspection frequency and suspend sampling per Section III.G of the Order. Dischargers shall provide an explanation with supporting information for all missed visual inspections or sampling required by this Attachment, to be included in the Annual Report.

⁶ PCBs were used between January 1, 1950 and January 1, 1980 and should be considered to be potentially present in structures built during that timeframe. "Structure", in this instance, shall have been constructed with floor space (such as a building).

III.C. Visual Inspection Requirements

III.C.1. Dischargers shall perform visual inspections, based on their Risk Level, in accordance with Table 2 below. The purpose of visual inspections is, to identify and record BMPs that need maintenance to operate effectively, that have failed, or that could fail to operate as intended. Except as specified in Section III.C.3 below, inspectors shall be the Qualified SWPPP Developer, Qualified SWPPP Practitioner, or be trained by the Qualified SWPPP Practitioner.

Table 2 – Visual Inspection Schedule⁷

Risk Level	Weekly	Pre-Qualifying Precipitation Event	During Qualifying Precipitation Event	Post-Qualifying Precipitation Event
1	X	X	X	X
2	X	X	X	X
3	X	X	X	X

III.C.2. Dischargers shall conduct weekly visual inspections to ensure that BMPs are properly installed and maintained. A pre-, during, or post-qualifying precipitation event inspection also satisfies the weekly visual inspection requirement.

III.C.3. Dischargers shall have a QSP conduct a pre-Qualifying Precipitation Event inspection within 72 hours prior to any weather pattern that is forecasted to have a 50 percent or greater chance of 0.5 inches or more in a 24-hour period. Precipitation forecast information shall be obtained from the [National Weather Service Forecast Office](https://www.weather.gov/) (e.g., by entering the zip code of the project’s location at <https://www.weather.gov/>) and shall be included as part of the inspection checklist weather information. If extended forecast precipitation data (greater than three days) is available from the National Weather Service, the pre-precipitation event inspection may be done up to 120 hours in advance. The pre-Qualifying Precipitation Event inspection shall include an inspection of the following:

- a. All stormwater drainage areas to identify leaks, spills, or uncontrolled pollutant sources and when necessary, implement appropriate corrective actions to control pollutant sources.
- b. All BMPs to identify whether they have been properly implemented in accordance with the SWPPP, and when necessary, implement appropriate corrective actions to control pollutant sources.
- c. All stormwater storage and containment areas to detect leaks and check for available capacity to prevent overflow.

III.C.4. Dischargers shall conduct visual inspections at least once every 24-hour period during Qualifying Precipitation Events. Qualifying Precipitation Events are

⁷ This table is limited to routine weekly inspections and Qualifying Precipitation Event related inspections. Other visual inspections may be required under this Permit and are described in the applicable sections.

extended for each subsequent 24-hour period forecast to have at least 0.25 inches of precipitation.

- III.C.5. Dischargers shall conduct post-Qualifying Precipitation Event visual inspections within 96 hours after each Qualifying Precipitation Event if 0.5 inches or more precipitation is measured during the duration of the Qualifying Precipitation Event using the onsite rain gauge. The inspection is to:
- a. Identify if BMPs were adequately designed, implemented, and effective;
 - b. Identify BMPs that require repair or replacement due to damage; and
 - c. Identify additional BMPs that need to be implemented and revise the SWPPP accordingly.
- III.C.6. Dischargers shall conduct visual inspections during scheduled site operating hours.
- III.C.7. For each required inspection, dischargers shall develop and complete an inspection checklist that, at a minimum includes:
- a. Inspection type (weekly, pre-precipitation, daily precipitation, or post-precipitation event);
 - b. Inspection date and time the inspection was conducted;
 - c. Weather information, including the presence or absence of precipitation, an estimate of the beginning of the Qualifying Precipitation Event, duration of the event, date of the end of the Qualifying Precipitation Event, and the amount of precipitation in inches;
 - d. Site information, including stage of construction, activities completed since last inspection, and approximate area of the site exposed;
 - e. A description of any BMPs evaluated and any deficiencies noted, including those that may have resulted in the release of non-visible pollutants;
 - f. A list of BMPs inspected, including erosion controls, sediment controls, chemical and waste controls, and non-stormwater controls;
 - g. Report of the presence of any floating and suspended materials, odors, discolorations, visible sheens, and any sources of pollutants in discharges and contained stormwater;
 - h. Any corrective actions required, including any necessary changes to the SWPPP and the associated implementation dates;
 - i. Photographs of areas of concern and the QSP's description of the problem, if any; and
 - j. Inspector's name, title, and certification, if any.

III.D. Water Quality Monitoring Requirements

Dischargers shall collect samples of discharges, based on their Risk Level in accordance with Table 3 and the requirements below, to monitor water quality and

assess compliance with the requirements of this General Permit. Samplers shall be the QSD, QSP, or be trained by the QSP.

Table 3 – Sample Collection Schedule

Risk Level	Stormwater Discharge Sample Collection (as applicable)	Receiving Water Sample Collection (as applicable)	Non-Visible Sample Collection (as applicable)
1	Not Applicable	Not Applicable	X
2	X	Not Applicable	X
3	X	X (Post-exceedance)	X

III.D.1. Risk Level 2 and 3 Stormwater Discharge Monitoring Requirements

- III.D.1.a. Risk Level 2 and 3 dischargers shall collect stormwater grab samples, from all discharge locations incorporating runoff from project construction sites⁸, during discharge and within site operating hours. The grab samples shall be representative of the discharge flow and characteristics.
- III.D.1.b. Risk Level 2 and 3 dischargers shall obtain one sample from each discharge location per 24-hour period of each Qualifying Precipitation Event, during active discharge.
- III.D.1.c. Risk Level 2 and 3 dischargers shall collect samples of stored or contained stormwater during discharge from the impoundment, in accordance with Attachment J.
- III.D.1.d. Risk Level 2 and 3 dischargers shall analyze all samples for:
 - i. pH and turbidity (refer to Order, Section IV.C.3.c and d); and
 - ii. Any additional parameter required by the Regional Water Board.
- III.D.1.e. Risk Level 2 and 3 dischargers may sample run-on from surrounding areas if there is reason to believe run-on may contribute to exceedance of numeric action levels and/or numeric effluent limitations.

III.D.2. Risk Level 3 Receiving Water Monitoring Requirements

- III.D.2.a. Risk Level 3 dischargers who discharge directly into receiving waters are also required to monitor that receiving water if sampling results from the discharge monitoring location meets either of the following conditions:
 - i. pH value falls outside of the range of 6.0 and 9.0 pH units; or
 - ii. Turbidity exceeds 500 NTU.

⁸ The Glossary definition of ‘site’ applies here, i.e., *The area where the construction activity is physically located or conducted, including staging, storage, and access areas.*

- III.D.2.b. Receiving water monitoring does not apply if run-on from a forest fire or any other natural disaster caused the stormwater results to fall outside the pH range or exceed the turbidity value.
- III.D.2.c. Risk Level 3 dischargers required to conduct receiving water monitoring shall collect samples as follows:
 - i. Collect, at minimum, one upstream receiving water sample from an accessible and safe location that is:
 - 1. Representative of the receiving water;
 - 2. As close as possible to the discharge location; and
 - 3. Upstream from the discharge location.
 - ii. Collect, at minimum, one downstream receiving water sample from an accessible and safe location that is:
 - 1. Representative of the receiving water;
 - 2. As close as possible to the discharge location; and
 - 3. Downstream from the discharge location.
- III.D.2.d. Risk Level 3 dischargers shall analyze the samples for the parameter that triggered this monitoring (either pH or turbidity, or both).
- III.D.2.e. Risk Level 3 dischargers shall collect the samples once every 24-hour period of the Qualifying Precipitation Event.
- III.D.2.f. Risk Level 3 dischargers shall specify the specific locations where samples were collected, date and time of sample collection, as well as constituents analyzed.
- III.D.2.g. The Regional Water Board delegate may require, in writing, that the Risk Level 3 discharger continue to sample the receiving water for the parameter that required this monitoring (pH and/or turbidity) after the Qualifying Precipitation Event ends.
- III.D.3. Non-Visible Pollutant Monitoring Requirements
 - III.D.3.a. Dischargers shall implement sampling and analysis requirements to monitor non-visible pollutants when there is:
 - i. Evidence of pollutant releases that are not visually detectable in stormwater discharges; and
 - ii. Releases of substances which could cause or contribute to an exceedance of water quality objectives in the receiving waters.
 - III.D.3.b. Dischargers are required to conduct sampling and analysis for non-visible pollutants identified in the SWPPP or otherwise known to be on site, only when the pollutants may be discharged due to failure to implement BMPs, a container spill or leak, or a BMP breach, failure, or malfunction.

- III.D.3.c. Dischargers shall collect at least one sample, within 8 hours, from each discharge location hydraulically down-gradient from the observed triggering event or condition.
- III.D.3.d. Dischargers shall continue to collect at least one sample per applicable discharge location for each 24-hour period that there is discharge, until the necessary corrective actions are completed to control further discharge of the pollutant.
- III.D.3.e. Dischargers are not required to sample if one of the conditions described in Section III.D.3.b above (e.g., breach or spill) occurs and, prior to discharge, the material containing the pollutant is fully remediated or removed; and BMPs to control the pollutant are implemented, maintained, or replaced as necessary.
- III.D.3.f. Dischargers shall analyze samples in the field or submit them to a laboratory as specified in Section III.F of this Attachment for analysis of all non-visible pollutants suspected to be present in the discharge, including applicable TMDL-specific pollutants listed in Table H-2 in Attachment H.

III.E. Sample Collection and Handling Instructions

III.E.1. Dischargers shall:

- a. Identify applicable parameters that require laboratory analysis for each stormwater discharge location (pH and turbidity are typically analyzed with field meters).
- b. Request the laboratory provide the appropriate number of sample containers, types of containers, sample container labels, blank Chain of Custody forms, and sample preservation instructions.
- c. Use the appropriate sample shipping method to the laboratory. The laboratory should receive samples within 48 hours of the physical sampling (unless otherwise required by the laboratory to meet all method hold times). The options are to either deliver the samples to the laboratory, arrange to have the laboratory pick them up, or ship them overnight to the laboratory.
- d. Use only the sample containers provided/specified by the laboratory to collect and store samples. Use of any other type of containers could cause sample contamination.
- e. Prevent sample contamination by not touching or putting anything into the sample containers before collecting stormwater samples.
- f. Not overfill sample containers. Overfilling can change the analytical results.
- g. Secure each sample container cap without stripping the cap threads.
- h. Label each sample container. The label shall identify the date and time of sample collection, the person taking the sample, and the sample collection location or discharge point. The label should also identify any sample containers that have been preserved.

- i. Carefully pack the sample container into an ice chest or refrigerator to prevent breakage and maintain temperature during shipment; frozen ice packs or ice is placed into the shipping container to keep the sample close to 4° C (39° F) until arriving at the laboratory (do not freeze samples).
 - j. Complete a Chain of Custody form with each set of samples. The Chain of Custody form shall include the discharger's name, address, and phone number, identification of each sample container and sample collection point, person collecting the samples, the date and time each sample container was filled, the analysis that is required for each sample container, and both the signatures of the persons relinquishing and receiving the sample containers.
- III.E.2. The Discharger shall designate and train personnel for the collection, maintenance, and shipment of samples in accordance with the above sample protocols and laboratory-specific practices.
- III.E.3. Dischargers shall perform all sampling and preservation protocols in accordance with the 40 Code of Federal Regulations Part 136 and the current edition of "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association).⁹
- III.E.4. Dischargers may refer to the Surface Water Ambient Monitoring Program's (SWAMP) Quality Assurance Program Plan (QAPrP) for more information on sampling collection and analysis.¹⁰

III.F. Analytical Methods Requirements

- III.F.1. Dischargers shall refer to Table 4 for applicable test methods, detection limits, and reporting units.

⁹ Unless other test procedures have been specified in this General Permit or by the Water Boards.

¹⁰ Additional information regarding the [SWAMP QAPrP](https://www.waterboards.ca.gov/water_issues/programs/swamp/quality_assurance.html#qaprp) can be found at: https://www.waterboards.ca.gov/water_issues/programs/swamp/quality_assurance.html#qaprp. [as of October 20, 2020]

Table 4 - Test Methods, Detection Limits and Reporting Units

Parameter	Test Method	Discharger Type	Method Detection Limit	Reporting Units
pH	Field test with calibrated portable instrument using U.S. EPA approved procedures	Risk Level 2 and 3	0.2	pH units
Turbidity	U.S. EPA 0180.1 and/or field test with calibrated portable instrument	Risk Level 2 and 3	1	NTU
Non-Visible Pollutant Parameter(s)	U.S. EPA-approved test method for the specific pollutant parameter	All Risk Levels	Dependent on the test method	Dependent on the test method

- III.F.2. All monitoring instruments and equipment shall be calibrated and maintained in accordance with manufacturers' specifications to ensure accurate measurements. Additionally, records of calibration shall be retained for at least three years and made available upon request.
- III.F.3. Risk Level 2 and 3 dischargers shall perform pH analysis on-site with a calibrated pH meter using a U.S. EPA acceptable test method.
- III.F.4. Risk Level 2 and 3 dischargers shall perform turbidity analysis using a calibrated turbidity meter (turbidimeter), either on-site or at a State Water Board Environmental Laboratory Accreditation Program (ELAP)-accredited laboratory. Acceptable test methods include Standard Method 2130 B or U.S. EPA Method 180.1.
- III.F.5. All analyses of laboratory-analyzed parameters shall be sent to and conducted at a laboratory recognized by the State Water Board Environmental Laboratory Accreditation Program (ELAP), with the exception of field analysis conducted by the discharger for turbidity and pH.
- III.F.6. All dischargers shall assign a value of zero (0) for all non-visible pollutant analytical results less than the minimum level (reporting limit), as reported by the laboratory, used in calculations required by this permit (e.g., numeric action level and numeric effluent limitation exceedance determinations), so long as a sufficiently sensitive test method was used as evidenced by the reported method detection limit and minimum level.

III.G. Exceedance Response Requirements¹¹

- III.G.1. Dischargers are subject to the applicable numeric action levels and/or numeric effluent limitations based on their Risk Level as shown in Table 5 below.

¹¹ Terms including, but not limited to, numeric action level, numeric effluent limitation, and exceedances are defined in Attachment B of this General Permit.

Table 5 - Numeric Action Levels and Numeric Effluent Limitations

Parameter	Discharger Type	Numeric Action Level	Numeric Effluent Limitation
pH	Risk Level 2 and 3	Lower = 6.5 Upper = 8.5	Not Applicable
Turbidity	Risk Level 2 and 3	250 NTU	Not Applicable
TMDL-related Pollutant	Responsible Dischargers with a project of any Risk Level	Refer to Table H-2 in Attachment H	Refer to Table H-2 in Attachment H

- III.G.2. For pH and turbidity, the discharger shall use the field meter readings obtained from each discharge location per day of discharge to determine if there has been an exceedance of the numeric action levels.
- III.G.3. Whenever analytical results indicate that the discharge is below the lower pH value, above the upper pH value, exceeds the turbidity value, or exceeds an applicable TMDL-related numeric action level or numeric effluent limitation, dischargers shall determine the source(s) of the pollutant and immediately implement corrective actions to:
 - a. Meet Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology requirements in 40 Code of Federal Regulations §§ 450.21 through 450.23¹²; and
 - b. Reduce or prevent pollutants in stormwater and authorized non-stormwater discharges from causing further exceedances.
- III.G.4. Dischargers shall iterate corrective actions until the discharge is in compliance with the applicable numeric action level(s).
- III.G.5. The source evaluation shall be kept with the SWPPP and specifically address what corrective actions were taken or will be taken and provide a schedule for their completion.

IV. REPORTING REQUIREMENTS

IV.A. Visual Inspections

Dischargers shall keep all completed inspection checklists and related documentation with the SWPPP on-site or electronically.

12 United States Environmental Protection Agency, [Construction and Development Effluent Limitation Guidelines §§ 450.21 through 450.23](https://www.ecfr.gov/current/title-40/chapter-I/subchapter-N/part-450/subpart-B?toc=1), <<https://www.ecfr.gov/current/title-40/chapter-I/subchapter-N/part-450/subpart-B?toc=1>> [as of June 28, 2022].

IV.B. Water Quality Monitoring

IV.B.1. Risk Level 2 and 3 Stormwater Discharge Monitoring Reporting

- IV.B.1.a. Risk Level 2 and 3 dischargers shall electronically submit through SMARTS all field sampling results within 30 days of the completion of the precipitation event or within 10 days if the field sampling results demonstrate the exceedance of the pH, and/or turbidity numeric action levels.
- IV.B.1.b. Risk Level 2 and 3 dischargers that exceeded the pH and/or turbidity numeric action levels shall prepare a Numeric Action Level Exceedance Report when requested, in writing, from a Regional Water Board delegate and shall submit and certify each Numeric Action Level Exceedance Report through SMARTS within 30 days of receiving the written request, in accordance with Section IV of this General Permit's Order.
- IV.B.1.c. The Numeric Action Level Exceedance Report shall include:
 - i. The analytical method(s), method reporting unit(s), and method detection limit(s) for each parameter;
 - ii. The date, place, time of sampling, visual inspections, and/or measurements, including precipitation; and
 - iii. An assessment of the existing BMPs associated with the sample that exceeded the numeric action level, a description of each corrective action taken including photographs, and date of implementation.
- IV.B.1.d. Risk Level 2 and 3 dischargers that prepared a Numeric Action Level Exceedance Report shall retain a copy of the report for a minimum of three years after the date the exceedance report is certified and submitted.

IV.B.2. Risk Level 3 Receiving Water Monitoring Reporting

- IV.B.2.a. Risk Level 3 dischargers shall electronically submit all receiving water sample results through SMARTS within 10 days of a precipitation event.

IV.B.3. Non-Visible Pollutant Monitoring Reporting

- IV.B.3.a. All dischargers that conducted non-visible pollutant monitoring shall electronically submit through SMARTS all field and/or analytical sampling results within 30 days after obtaining the analytical result or within 10 days after if the analytical results demonstrate the exceedance of an applicable TMDL-related numeric action level or numeric effluent limitation or Basin Plan parameter.
- IV.B.3.b. All dischargers that exceeded an applicable TMDL-related numeric action level shall prepare a Numeric Action Level Exceedance Report when requested, in writing, from a Regional Water Board delegate and shall submit and certify each Numeric Action Level Exceedance Report through SMARTS within 30 days of receiving the written request, in accordance with Section IV of this General Permit's Order.

- IV.B.3.c. The Numeric Action Level Exceedance Report shall include:
 - i. The analytical method(s), method reporting unit(s), and method detection limit(s) for each parameter;
 - ii. The date, place, time of sampling, visual inspections, and/or measurements, including precipitation; and
 - iii. An assessment of the existing BMPs associated with the sample that exceeded the numeric action level, a description of each corrective action taken including photographs, and date of implementation.
- IV.B.3.d. All dischargers that prepared a Numeric Action Level Exceedance Report shall retain a copy of the report for a minimum of three years after the date the exceedance report is certified and submitted.
- IV.B.3.e. All dischargers that exceed an applicable TMDL-related numeric effluent limitation shall comply with the water quality-based corrective action requirements in Section VI.Q of the Order.